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Sameer Tannous

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LEON R TURKEVICH
2000 M STREET NW
7TH FLOOR
WASHINGTON, DC 200363307

EXAMINER

BARQADLE, YASIN M

ART UNIT

PAPER NUMBER

2153

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/725,930

Applicant(s)

TANNOUS, SAMEER

Examiner

Yasin M. Barqadle

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/06/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 12, 13, 19, 30 and 40-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 12, 13, 19, 30 and 40-42 is/are rejected.
- 7) ☒ Claim(s) 3-11, 15-17, 21-22, 24-27, 29, 31-33, and 35-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Response to Amendment

1. Applicant's arguments filed on March 06, 2007 have been considered but are not deemed persuasive.

- Claims 1-22, 24-27, 29-33 and 35-42 are presented for examination.

Response to Arguments

2. In response to Applicant's arguments that "Goddard explicitly requires packet filtering to performed before the packet is sent to the application layer, even if packets are received in promiscuous mode, and neither discloses nor suggests generating, for each corresponding (promiscuously) detected IP frame, a response IP frame by an executable emulation application, as claimed. Moreover, Goddard specifically avoids generating a response IP frame for each promiscuously detected IP frame by (1) filtering the promiscuously detected packets based on MAC addresses or IP addresses, and (2) selectively dropping packets that do not meet the prescribed criteria..." (page 12 second paragraph). Examiner notes that "promiscuously detecting IP frames on a network interface" do not preclude detecting selected IP frames. As pointed out by the Applicant, Goddard promiscuously detects packets based on MAC address or IP

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address, and (2) selectively drops packets that do not meet the prescribed criteria (see above code). Applicant similarly detects IP frames having certain criteria and discards certain IP frames as disclosed in page 6, lines 22-29 "The emulation applications 26 executing within the application runtime parse the contents of the IP frame to obtain the IP source address, the IP destination address, any layer 4 information, and the application request within the IP frame (e.g., an HTTP get request) from one of the client workstations 14. One of the emulation applications 26 will identify the application request in step 44 and process that request, and the remaining emulation applications that cannot recognize the application request will discard the IP frame. In this example, the HTTP process 26a recognizes in step 44 the HTTP get request, and generates in step 46 an application response that includes the necessary HTML tag data in response to the HTTP get request." Therefore, it is each of those particular IP frames selected for detection a response IP frame is generated as taught by the combined teachings of Goddard and Grover. Grover teaches generating a response IP frame for each detected IP frame "FIG. 11 illustrates how test tool 34 can process a collection of randomly ordered command and response packets and generate a chronologically ordered trace of command and response packets.

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At block 171 test tool 34 sets a packet pointer to the beginning of the buffer containing the out-of-order command and response packets ... each packet in the collection of randomly ordered command and response packets is examined until a response packet having the same identifier as that of the command packet is located [Col. 13, lines 21 to col. 14, line 9].

In response to Applicant's argument that " Grover does not disclose or suggest generating a response IP frame, for each corresponding detected IP frame, by an executable emulation application in the protocol emulator; rather, Grover consistently teaches capturing the response packet from the network 20 by the packet prescan 31, and reviewing the received response packet by the test tool 34." Examiner notes that Grover's Test tool initiate and executes packet prescan " The method and apparatus according to this invention can be initiated by executing test tool 34 on work station 30. Test tool 34 can initiate packet prescan 31... Packet prescan 31 puts network card 28 into promiscuous mode so that packet prescan 31 will be passed each packet communicated on network 20 rather than only those packets having a destination address of workstation 30. Thus, packet prescan 31 will receive each packet communicated over network 20 and can analyze each packet to

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determine if it is a command and a response packet and should be farther analyzed, or if it should be discarded." (Col. 6, lines 1-27). Therefore, it the test tool that executes the packet prescan to receive each packet and analyze to generate a chronologically ordered trace of command and response packets (see col. 13, lines 21 to col. 14, line 9].

In response to Applicant's argument that "In fact, the alleged motivation specified in the rejection demonstrates the exact opposite of what is claimed, and actually teaches away from the claimed feature of generating a response frame for each corresponding (promiscuously) detected IP frame" page 15, second paragraph. Examiner respectfully disagrees. Examiner's interpretation of "promiscuously detecting IP frames on a network interface" as argued above is in alignment with the combined teaching of Goddard and Grover. Hence, detecting and extracting particular packets reduces the number of irrelevant packets captured by the test tool (col. 7, lines 20-24)

Allowable Subject Matter

3. Claims 2,14,18,20 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten

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in independent form including all of the limitations of the base claim and any intervening claims.

Applicant is requested to rewrite objected claims as (wherein the protocol emulator has a prescribed assigned IP address and a kernel configured for detecting IP frames, the promiscuously detecting step including passing by the kernel the detected IP frames to the executable emulation application independent of any specified IP destination address, including any IP destination addresses different from the prescribed assigned IP address, and monitoring by the executable emulation application for the detected IP frames received by the network interface). Claims 3-11,15-17,21-22, 24-27,29,31-33, and 35-39 depend to above objected claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 1,12-13,19,30 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goddard (USPN. 20020055980) in view of Grover (US. Patent number 5933602).

As per claims 1,12-14,19 and 30, Goddard teaches the invention of emulating IP devices in a protocol emulator (abstract and figs. 1-6, comprising:

Promiscuously detecting IP frames on a network interface (fig. 5 shows a promiscuous capturing all packets arriving at the data link layer ¶ 0055);

detected IP frame by an executable emulation application (¶ 0028-0031 ¶ 005-0057 and ¶ 0074); and

outputting each said response IP frames by a raw socket onto the network interface "Packets containing data requests (e.g., HTTP requests) are stored in the queue 212 when all of the back-end connections 214-224 are active. When an idle server is detected, a data request is dequeued, combined with corresponding TCP and IP headers, and sent to this server using a raw socket (raw socket is provided in many operating systems, e.g., UNIX, for users to read and write raw network protocol datagrams with a protocol field that is not processed by the kernel). Packets containing response data from a back-end server are combined with appropriate TCP and IP headers and passed to the corresponding client using raw sockets. (FIG. 6.¶ 0055-

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0057). Furthermore, Goddard teaches "where all communications with clients 108-110 pass through the dispatcher 102, the dispatcher can independently monitor the performance metric of concern for the back-end server 104." (§ 0039).

Although Goddard shows substantial features of the claimed invention, he does not explicitly show generating a response IP frame for each detected IP frame.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Goddard, as evidenced by Grover USPN. (5933602).

In analogous art, Grover whose invention is about a system for selecting command packets and corresponding response packet from communication stream, disclose generating a response IP frame for each detected IP frame "FIG. 11 illustrates how test tool 34 can process a collection of randomly ordered command and response packets and generate a chronologically ordered trace of command and response packets. At block 171 test tool 34 sets a packet pointer to the beginning of the buffer containing the out-of-order command and response packets ... each packet in the collection of randomly ordered command and response packets is examined until a response packet having the same identifier as that of the command packet is located [Col. 13, lines 21 to col.

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14, line 9]. Giving the teaching of Grover, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Goddard by employing the system Grover which can extract only command and corresponding response packets would greatly ease the development of software and hardware which utilizes a command and response protocol and further reduces the number of irrelevant packets captured by the test tool (col. 7, lines 20-24).

Regarding claims 40 and 42, Grover teaches wherein the promiscuously detecting, generating, and outputting each are performed in the protocol emulator (see fig. 1 and 2).

Conclusion

5. The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

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GLENN B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100